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In the abstract:

On a separate page following the claims, please add the following abstract:

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## -- Abstract

The method and system is for the acid gas delignification of cellulose pulp in a gas/fluid suspension. The oxygen gas delignification takes place in a reactor system with one or  
10 several oxygen gas reactors. Delignification chemicals are added at least before the first oxygen gas reactor such that oxygen gas remains present during the complete reaction process in the reactors. Alkali in an amount that ensures that the pH lies above 9 is also added. The temperature of  
15 the cellulose pulp is measured at two different positions (T1, T2, ..., Tn) viewed in the direction of flow of the pulp through the system. The measurements are used to control the charged amount of the delignification chemicals to the oxygen gas delignification. The first temperature measurement (T1)  
20 is carried out at a position in association with the first addition of oxygen gas.

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